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WARTIME AND POSTWAR STATUS OF THE SILK INDUSTRY IN THE FAR EAST: CHINA

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A survey of the wartime and postwar status of the Chinese silk industry, indicating wartime restrictions and difficulties of postwar revival.

DEPARTMENT OF STATE

Division of Research for Far East
OFFICE OF INTELLIGENCE RESEARCH

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SUMMARY

The Chinese silk industry suffered considerable physical damage and deterioration during the war because of Japanese scrapping of machinery and the lack of world markets. Filature capacity is now about one-third of the prewar capacity, while mulberry acreage has been reduced by 40 to 50 percent. Although filature silk production in 1946 was less than one-third of the prewar output, total silk production, including the output of cottage industry, is estimated at about two-thirds of prewar production.

The combination of inflationary conditions and a controlled exchange rate in China has resulted in unprofitable operations throughout the silk industry. The Chinese Government has granted considerable aid and assumed control of many phases of the industry in an attempt to maintain production and save this export industry. Budgetary difficulties, however, limit the extension of subsidies. Although government assistance has prevented the collapse of the silk industry, the problems of the industry have not been permanently solved.

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I. INTRODUCTION

The two chief raw silk producing areas in China are the Yangtze and Canton deltas. Smaller centers exist in Szechwan, Shantung, Hopei, and Manchuria. Table 1 summarizes China's raw silk production and exports in selected years from 1873 to 1946. Accurate annual statistics are available for exports, but the production figures are at best approximate estimates, prepared by various silk experts in China in the years listed.

Table 1. CHINESE RAW SILK PRODUCTION, EXPORTS, AND CONSUMPTION IN SELECTED YEARS FROM 1873 to 1946
(In 1,000 picul bales of 132.3 pounds)

Year	Production [a]	Exports	Apparent Consumption [b]
1873	126	54	72
1898	194	92	102
1927	252	135	117
1935	95	74	21
1946	60	20	40

Sources: For 1946, China Daily Tribune, November 27, 1946.
For other years, compiled from R-29, Shanghai, June 1, 1946, UNRESTRICTED.

Notes: a. Excluding wild silk.
b. Residual item, disregarding stock changes.

On the basis of these figures it appears that output doubled from 1873 to 1927 under the impetus of sharply increased exports. However, China lost its position as the world's chief silk producer

to Japan during this period. China produced 45 percent of the world's silk in 1898 and only 29 percent in 1928.[1] The depression of the 1930's reduced both the export and the domestic market, and production in 1935 dropped to less than 40 percent of the 1927 level. During the 1930's domestic consumption of silk is estimated to have averaged about 40,000 piecul bales annually,[2] reflecting a shift from silk to substitute fibers.

During the depression period, under government encouragement, the Chinese silk industry made considerable progress, especially in the scientific breeding of eggs from high-yielding strains. It is estimated that improved eggs accounted for only 5 percent of the total cocoon production costs, although they resulted in improved quality and up to 100 percent increases in raw silk output.[3] Government and private egg stations developed and sold these improved eggs, thus enabling the farmers to reduce production costs considerably. This activity operated against adverse market conditions, however, with prices dropping under 25 percent of the 1929 level and recovering slowly, reaching 40 percent of the 1929 price level in 1936 and 60 percent in 1940.[4] The improvement in efficiency could not match the price declines, and the silk industry suffered severely.

1. R-29, Shanghai, June 1, 1946, UNRESTRICTED.
2. Ibid.
3. R-29, June 1, 1946
4. US Tariff Commission, U.S. Imports from China, 1945;
   US Department of Commerce, Foreign Commerce Yearbook, 1933.

II. WARTIME EXPERIENCE

Although the initial fighting between the Chinese and the Japanese forces in 1937 destroyed a number of silk filatures, through 1941 the Japanese fostered the silk industry in areas they occupied. The industry was an important source of foreign exchange. The Central China Silk Corporation was established to monopolize and direct the silk trade and to operate egg-breeding stations. Export prices improved markedly during this period; however, the policy of price-fixing for purchases of cocoons and raw silk in order to increase the corporation's profits is reported to have reduced the effects of this stimulus on Chinese producers. Exports remained at about the same level, and production probably did not decrease greatly.[1]

After the entry of the United States into the Pacific war, however, export markets for silk disappeared and the silk industry collapsed. Exports of 129 bales were recorded in 1943; no exports were reported in 1944 and the first half of 1945. Much of the machinery in the filatures was removed for scrap by the Japanese, while on the farms the mulberry trees on productive cropland were removed (about 40 percent of the mulberry acreage),[2] no new plantings were made, and the remaining trees received the minimum of care. Silk production declined to amounts that could be consumed domestically.

1. A-19, June 1, 1946
2. Ibid.

Table 2 presents Chinese Government statistics comparing the industry as it existed in 1937 and 1946 in Kiangsi, Chekiang, and Szechwan.

Table 2. THE CHINESE RAW SILK INDUSTRY, 1937 and 1946

	1937	1946	Percentage Decline
Reeling basins (number)	34,481	11,235	67%
Basins operating (number)	30,000	11,000	63%
Annual reeling capacity [a]	91,000	33,000	63%
Dry cocoons required [b]	408,000	150,000	63%
Cocoon production [b]	578,000	76,000	87%
Cocoon balance [b]	+170,000	-74,000	—
Cocoons requested from SCAP [b]	—	75,000	

Source: China Daily Tribune, Shanghai, October 10, 1946.
Notes: a. Piculs of raw silk.
b. Piculs of dry cocoons.

III. POSTWAR STATUS

At the end of the war, China's chief silk producing area, the Yangtze delta, had suffered about a two-thirds loss of its productive facilities. Over half of the mulberry land and about one-third of the reeling capacity remained. However, silk production was not profitable to the farmer, and even the available facilities were not ulitized. The

government decided to step in and rehabilitate this export industry as a future source of badly needed foreign exchange.

The China Silk Corporation was established shortly after the end of the war with the Japanese and puppet silk industry assets and a loan of CN$5 billion against these assets from the Ministries of Agriculture and Economics. One of the first acts of the corporation was to take charge of 3 million grams of silkworm eggs and 2 million mulberry seedlings sent from Japan under a barter trade agreement. The wastage is reported to have been tremendous, one estimate stating that only 20 percent of the eggs and 16 percent of the seedlings reached the farmers. This wastage was probably due not to greed, as was frequently charged, but to normal Chinese inefficiency and the chaos existing in a new organization without an adequate field staff. Furthermore, disposal of these supplies was complicated by the fact that, in view of the unprofitability of cocoon production, the farmers were not interested in obtaining eggs and planting seedlings.

For the spring crop of 1946, the corporation, through its loan agreements with the filatures, set the cocoon purchase price at between CN$120,000 and CN$160,000 per picul, a price roughly equivalent, including transport and manufacturing costs, to CN$3,400,000 per bale of raw silk. A bale of silk on the market at that time sold at CN$2,500,000, and, on the basis of manufacturing and transport costs

of CN$1,400,000 and a conversion ratio of 20:1 (twenty piculs of green cocoons required for one picul of silk), justified a farm price of less than CN$60,000 per picul. However, a study of farm costs by the corporation revealed that it cost the farmer CN$168,000 to produce a picul of fresh cocoons; [1] eggs, $9,000; leaves, $90,000; labor, $60,000; miscellaneous, $9,000; total, $168,000.

In current production the cost of labor and leaves can be discounted as an immediate influence on production, for the farmer will employ both rather than let them remain idle. Neither will be fully employed in the production of cocoons, however, nor will the farmer plan for future expansion of cocoon production. The corporation price did not meet the farmer's costs, and, since the price was based on loans to filatures, it is questionable whether the actual price paid was that high. However, farm prices were probably higher than they would have been without this assistance.

For the purchase of the spring crop the China Silk Corporation arranged for a loan of CN$10 billion (later increased to CN$20 billion) for the purchase of cocoons by the filatures, financing 70 percent of the cost of cocoons on a four months' loan at 3¼ percent interest per month. This interest rate was exceptionally favorable as compared with the commercial loan rates of 15 percent per month. It should be noted that the farm price was not so high as to make the purchase

1/ China Press, October 10, 1946.

of cocoons an unprofitable risk, since the filatures were willing to risk 30 percent of the purchase price on the chance of a higher market later. The China Silk Corporation had shipped 500 bales of raw silk to the US shortly after VJ-day, realizing a price of US $10 a pound with indications of possible higher prices in the future. Furthermore, such a low-interest commodity loan was considered a good risk since commodity prices were steadily advancing in terms of the domestic inflation and it seemed likely that, at the end of the four-month period, repayment could be made on a much higher market.

The filatures entered the cocoon market in May and June, but by July it was apparent that the raw silk export market was breaking and that they were bound to lose money on the manufacture of silk. From May 1 to August 1, 1946, the domestic price was declining rather that advancing (see Table 3), and the US was becoming overstocked with Japanese silk. In July the filatures suspended operations and the purchased cocoons were forfeited to the government banks with a 30 percent loss on the purchase price. There was, of course, no interest in the purchase of cocoons, and the entire silk industry ground to a standstill.

To break the impasse, the China Silk Corporation negotiated a further loan from the government banks to guarantee a fixed price of

CN$3,800,000 per piecul of raw silk to induce the filatures to enter the cocoon market and begin operations again. The filatures worked under contract to the corporation; they purchased cocoons from the corporation and were required to sellthe raw silk back to the corporation at a fixed price that allowed a small profit on operation. The market promptly recovered. Since that time the filatures have been working on more or less full operations, depending upon the supply of cocoons.

The fall cocoon crop was a disappointment because of the lack of farm interest. Some 630,000 egg sheets were prepared in the Kiangsu-Chekiang area, but it was reported that farmers took only one-third of them, producing a fresh cocoon crop of 39,000 piculs. [1] Lack of cocoon supplies to keep the filatures operating prompted an increase in the farm price (based on the loans for cocoon purchases) from CN $130,000 to CN$200,000 in December, [2] and at the end of January the purchase price of raw silk was adjusted to CN$6,326,400. [3] The gross margin between cocoon and raw silk prices was thus increased from CN $1,200,000 to CN $2,236,400 in order to take care of increased manufacturing and transport costs. Table 3 gives the Shanghai wholesale prices for raw silk, April 1, 1946 - February 15, 1947.

1. Far East Trader, October 23, 1946.
2. China Daily Tribune, December 15, 1946.
3. China Daily Tribune, January 27, 1947.

Table 3. SHANGHAI WHOLESALE PRICES FOR RAW SILK
APRIL 1, 1946 - FEBRUARY 15, 1947

Date	CN $000 per Picul[a]	US $ per Pound: Black-Market Exchange Rate[b]	US $ per Pound: Official Exchange Rate[c]	Piculs of Rice per Picul Silk
April 1, 1946	2,300	9.15	8.56	82
May 1 "	2,500	7.93	9.31	68
June 1 "	2,400	7.74	8.93	45
July 1 "	2,400	6.80	8.93	52
Aug. 1 "	2,150	6.44	8.00	37
Sept. 1 "	2,750	6.19	6.17	47
Oct. 1 "	4,450	9.29	9.99	77
Nov. 1 "	3,600	6.55	8.08	62
Dec. 1 "	3,900	5.92	8.75	66
Jan. 1 1947	4,650	5.38	10.44	72
Feb. 1 "	5,300	5.17	11.89	62
Feb. 15 "	7,200	4.20	16.16	60

a. The wholesale prices represent the small "free" market in silk. Government silk was produced under contract and was not released in the domestic market; therefore, it had no direct influence on wholesale prices.

b. Calculated at the black-market exchange rate for US dollars. Represents the internal price of silk in US dollars.

c. Calculated at the official exchange rate for US dollars. (US $1 equals CN$2,020 to August 19, 1946 and CN$3,350 thereafter). Represents the export price in US$, FOB Shanghai.

By pegging farm prices and contrasting for raw silk at a price calculated to allow small profits to manufacturers, the China Silk Corporation found itself left with a considerable quantity of raw silk on its hands, carried on the books at a far higher price than could be obtained in the export markets abroad. An estimated 10,000 bales held in October 1946 could have been marketed in the US for US$8 million at about US$6 per pound. At the official exchange rate, however, this would have meant a return of CN$2,680,000 per bale for silk that the corporation had purchased at CN$3,800,000 (although, at the black-market exchange rate prevailing on October 14, 1946, CN$3,520,000 per bale would have been realized on the export sale). The corporation was unwilling to write off a 30 percent loss in the CN$ book value of the silk. Table 3 shows that exports to the US market, where prices of US $6.00-7.00 per pound are obtainable, would have entailed even greater subsidies after October, although a profitable silk trade could have been established at black-market exchange rates (which more closely approximate free exchange rates).

Small exploratory shipments were made to markets in Southeast Asia and Europe in search of better prices. Apparently no solution to the problem was found there. The experience of the Kwangtung silk producers, who reportedly found a profitable South Seas market for piece goods, perhaps prompted the China Silk Corporation to carry its organization of the industry one step further to the silk weaving mills.

Accordingly, in January it was announced that an Amalgamated Silk Production and Sales Corporation had been organized, with capital subscribed by the member mills. It was to be under the direction of a committee of representatives from the government banks and the Central Trust and was to sell the mills supplies of raw and artificial silk for fabrification and export. Payment for the raw materials was to be made in foreign exchange at prices that would permit competitive marketing (although as high as possible to minimize the loss to the Central Trust). [1]

Thus at the present time the government, through its various corporations, has achieved a large degree of control over all phases of the silk industry. This control is based, however, on the subsidization of the industry, which is necessary because of the pegged exchange rates. The government actually owns less than 5 percent of the filatures and weaving mills; therefore, if export and domestic prices should come in line with each other, the basis for government control would disappear. Such a development cannot be predicted at the present time, however.

The resources of the government are limited, and it is fairly certain that the government will not underwrite a permanent prosperity in the silk industry. Assistance will be limited to that necessary to stave off collapse, and therefore expansion will be slow. It should be noted, however, that government efforts have been directed toward rehabilitating the silk filatures and weaving mills, located chiefly

1. R-10, Shanghai, January 16, 1947, UNRESTRICTED.

in the urban centers, and have not touched on the rural industry. Although statistics are not available on the cottage industry, it is suspected that a large proportion of the cocoons are being hand-reeled and -woven in the rural districts because of the low prices for cocoons, the need to employ idle rural labor, and the greater returns to the farmer. This situation prevails in Kwangtung, where most of the filatures have been destroyed, and to a lesser extent in Kiangsu-Chekiang.

IV. POSTWAR RELATIONS WITH THE JAPANESE SILK INDUSTRY

The Chinese hoped that, with the defeat of Japan, they would regain the position they held fifty years ago as the chief world producer of silk. The higher prices obtained through government semi-monopoly of the silk output were expected to insure rapid rehabilitation of the silk industry, which was to have been further speeded through reparations from Japan of processing machinery, improved eggs, mulberry seedlings, etc. An impressive bill of damages was drawn up by the Chinese to support their reparations claims for their silk industry.

The Chinese first negotiated for the shipment of improved eggs and mulberry seedlings, which arrived in China in February and March 1946. Actually these shipments did not contribute greatly to China's silk industry. The mulberry seedlings, if they had been fully utilized,

would have planted only 5,700 mow[1] as against an estimated prewar mulberry acreage in Kiangsu-Chekiang of 3,600,000 mow. The China Silk Corporation estimated total plantings during 1946 at 200 million seedlings, equivalent to 570,000 mow; therefore, the Japanese trees, at best, would have been less than 1 percent of the total trees planted.[2] The 300,000 improved egg sheets obtained from Japan formed less than 10 percent of the total egg sheet supply for the spring crop and less than 20 percent of the supply of improved egg sheets.

The next request was for 10 million pounds of cocoons (75,000 piculs) in order to maintain full operations of the filatures. This request, made in April, was based on an estimate of filature capacity for 150,000 piculs of cocoons against an estimated supply of 75,000 piculs. It was informally refused by SCAP officials on the grounds of its magnitude and was reduced by the Chinese to 500,000 pounds a month until the 1947 spring harvest (June 1947), less than half of the original request if shipments had begun in September. In November Chinese officials were advised that their reduced request would not be honored.[3] Negotiations continued, however, and, in January 1947, it was announced that SCAP had offered 1 million pounds of cocoons but that the Chinese were unwilling to pay the prices asked.[4]

1. At an estimated 350 trees per mow (one mow equals one-sixth of an acre).
2. Of this 570,000 mow, 300,000 mow would represent replacements of old orchards. (Replacements are estimated at 15 percent of the present 2 million mow.)
3. A-1, Shanghai, November 27, 1946, UNRESTRICTED.
4. China Daily Tribune, January 18, 1947.

The SCAP position has been bitterly criticized by the Chinese press and government leaders, and the resultant friction has been an irritant in Sino-American relations. The Chinese maintain that Japan has been directly responsible for the destruction of their silk industry and is therefore obligated to assist in its rehabilitation. The Chinese claim that they have made the utmost concessions in the spirit of compromise in their dealings with SCAP and that the US is ignoring their moral right to insist on Japanese aid in rebuilding their silk industry.

Since December an increasing number of mills have been idle because of the lack of supplies, a fact that bears out the original estimates and is causing considerable concern on the part of the Chinese Government and public, as well as increasing resentment of the SCAP position. However, the deterioration of the Japanese silk industry is such that the Chinese cannot expect any large-scale assistance, although small token shipments or offers may be made in order to soothe public opinion in China.